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# AMD Commercial Strategy

## *Server/Workstation Product Strategy*



### **Leverage Direct Connect Architecture and add enterprise features**

Multi-core

Virtualization

Reliability Availability Scalability (RAS)

### **Broad product line**

Blades through large symmetric multi-processing (SMP)

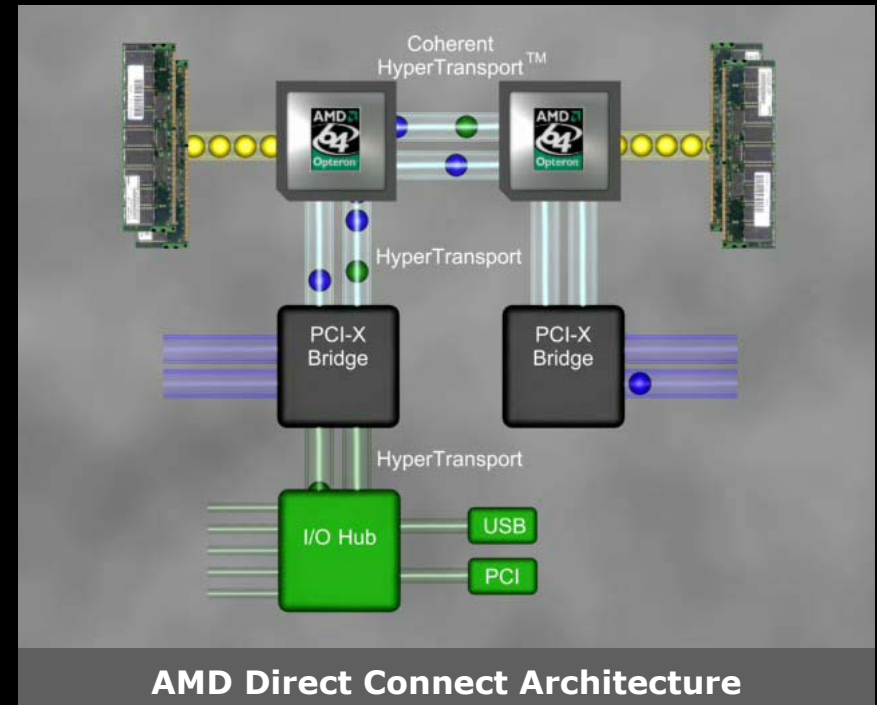
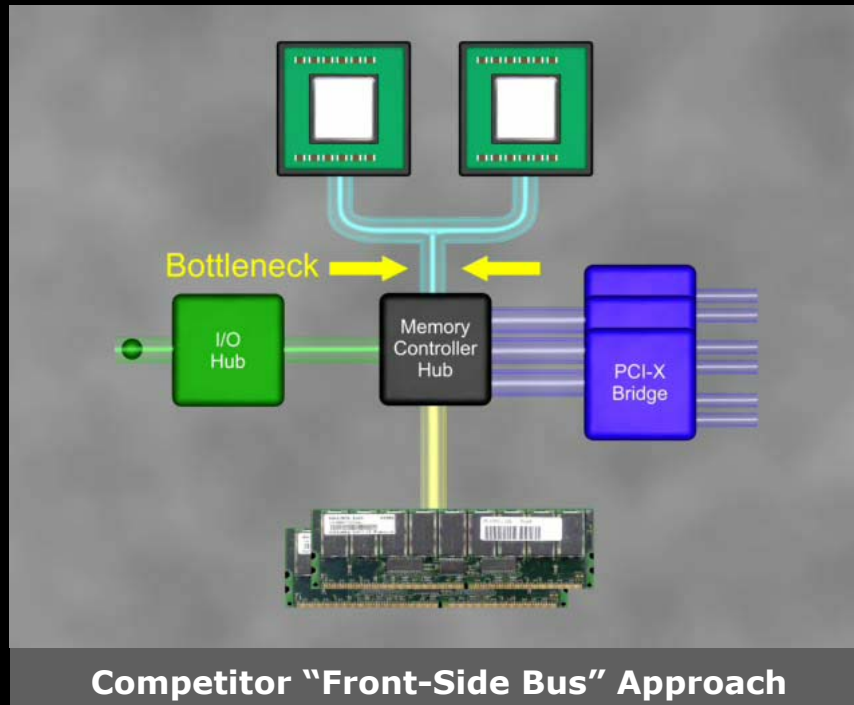
### **Lead in performance/per watt/per dollar**

### **Sell AMD Opteron™ processors into non-traditional server markets**

NAS, SAN, network appliances, Telco



# Superiority of the AMD Direct Connect Architecture



**Direct Connect Architecture helps eliminate the bottlenecks inherent in a front-side bus by directly connecting the processors, the memory controller and the I/O to the central processor unit to enable improved overall system performance and efficiency**

## We Promised it First

October 1999      AMD announces multi-core-enabled processor design at Fall Microprocessor Forum.

*"AMD plans to deploy multiple x86-64 processors on a single die."*

## We're Delivering it First

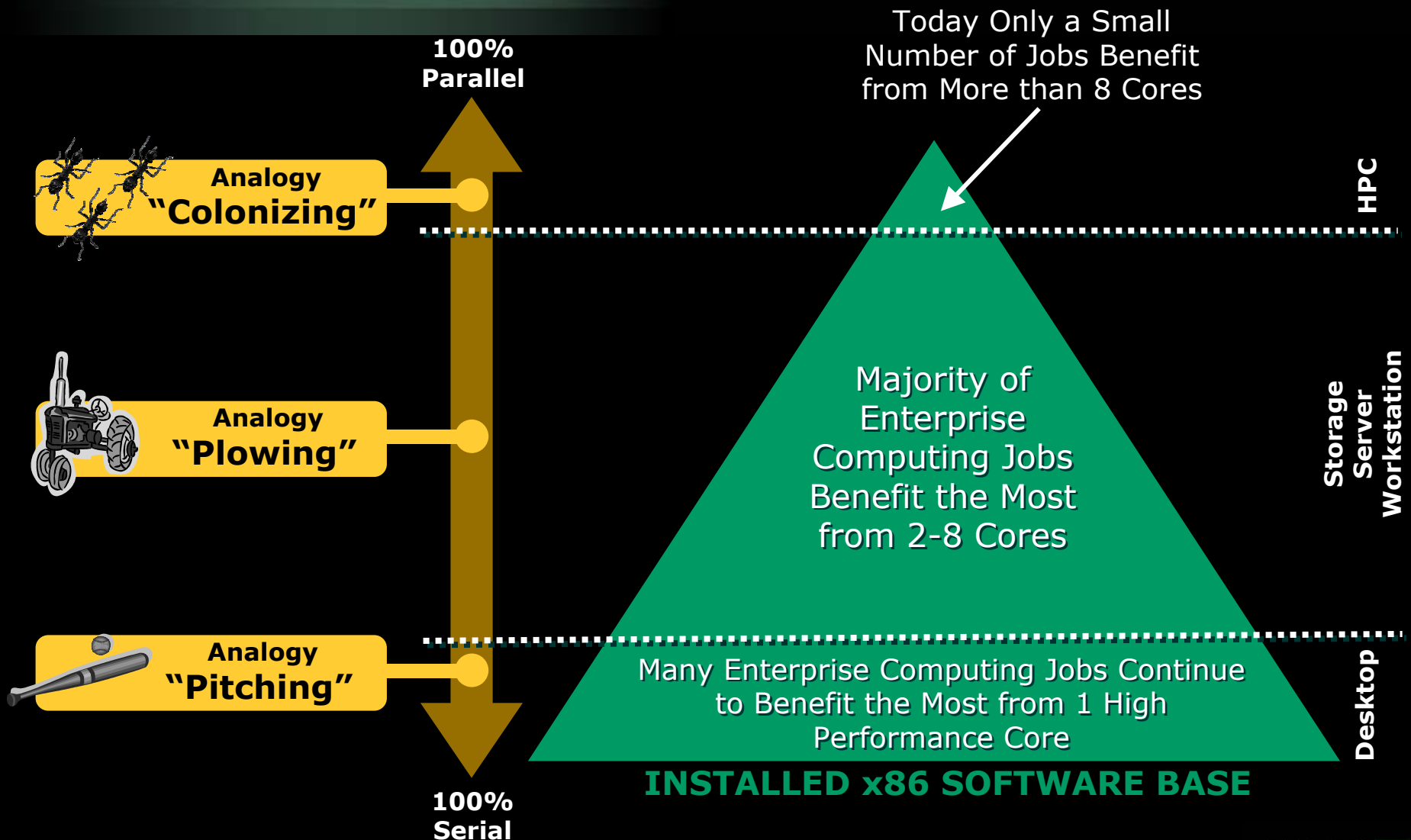
June 2004      AMD announces it completed dual-core AMD64 design

August 2004      AMD demonstrates industry's first x86, dual-core processor on a shipping platform

Mid 2005      AMD expects to be first to introduce dual-core processors for the one- to eight-socket server and workstation market

# Not All Software is Created Equal

## *Remember Amdahl's Law*



AMD 64 Dual-core Processors:  
Will give Enterprises what they need most *Now*:

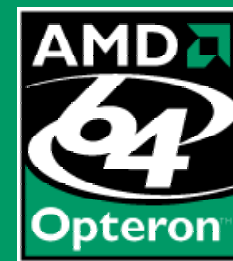


**Immediate performance boost**

**All Major OSes and many  
applications are ready now**

**Minimum infrastructure disruption  
and maximum investment  
protection**

**All the benefits of AMD 64 with  
Direct Connect Architecture  
enhanced virus protection**



**Dual Core  
Processors**

Will Provide the Largest Immediate Benefit to  
the Most Critical Applications



# Dual Core Processors

**Database and data mining**

**Web and transaction serving**

**Digital content creation**

**SAN/NAS**

**Mathematical analysis**

**Multi-task client devices**

**Virus**

**Compression**

**Media**



# Mid-2005: AMD Opteron™ Processor Dual-Core



## 90nm Process

Approximately same die size as  
130nm single-core AMD Opteron™  
processor\*

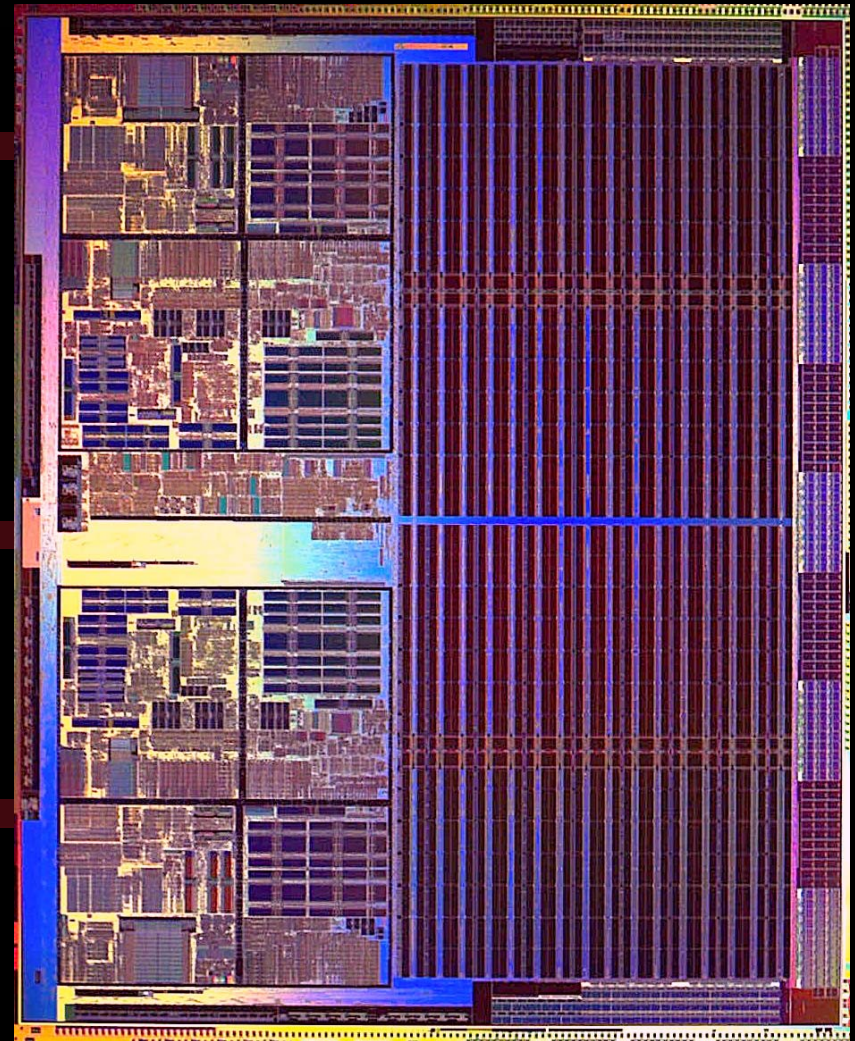
~205 million transistors\*

## 95 Watt Power Envelope

Fits into 90nm power  
infrastructure

## 940 Socket Compatible

All that's needed is a BIOS upgrade  
Compatible with all motherboards  
designed to our 90nm specification

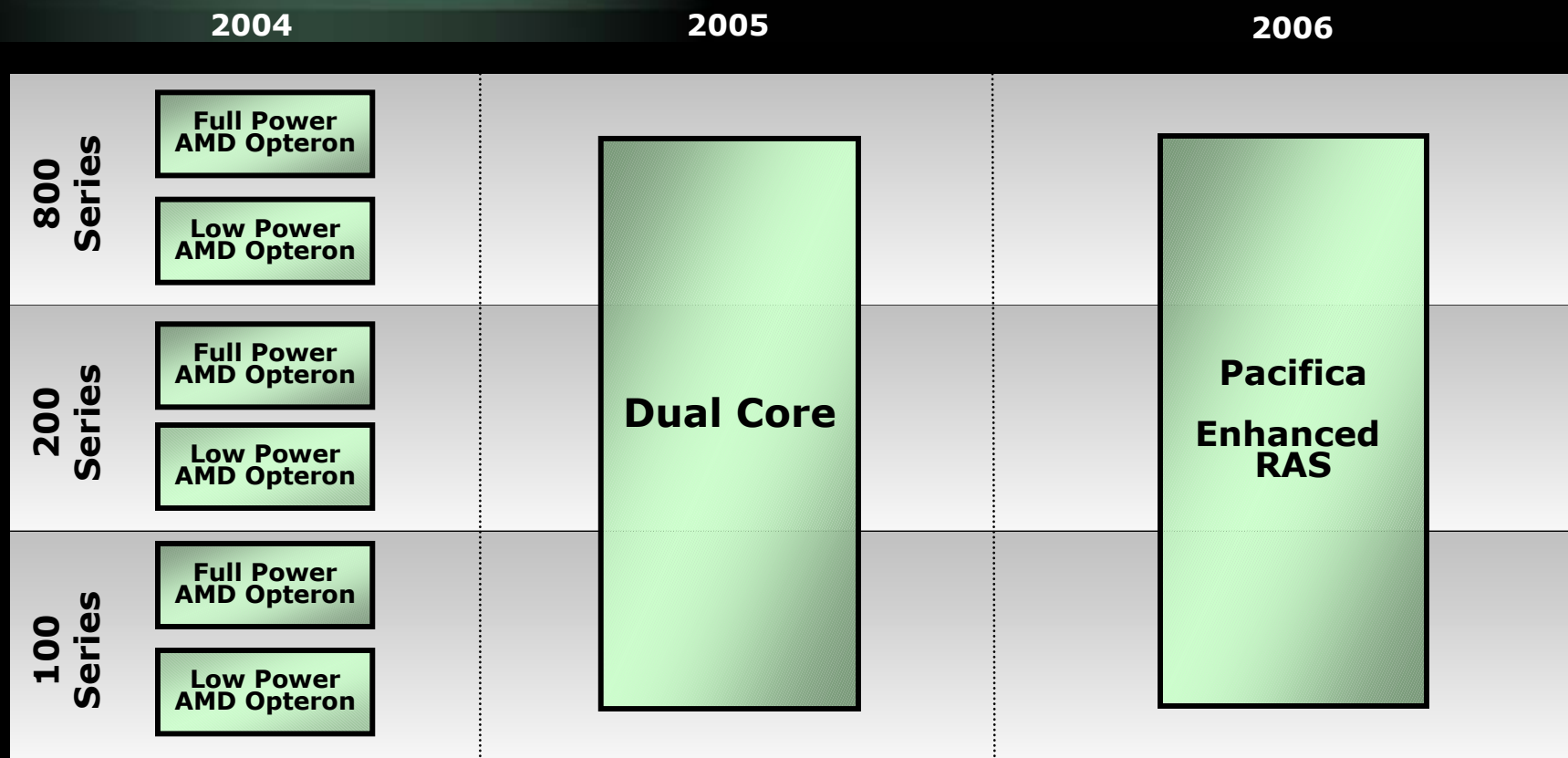


*\*Based on current revisions of the design*

11/12/2004



# Server/WS Processor Roadmap



**Focus: Continuous increase in Performance/Watt/\$**

# The Road Ahead



## **More Cores**

2, 4, 8

## **New Memory Support**

DDR2, DDR3, FBDIMM

## **Faster Input/Output**

HyperTransport™ 3 technology, PCI Express Gen 2

## **Better Power Management**

Split power planes allow CPU core voltage to be reduced, while NB services probes, memory requests

## **Trusted Computing**

Enhanced Virus Protection, Presidio





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